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Content of ginsenoside Rg1 in the *Panax ginseng* cultivated in Mongolia

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The *Panax ginseng* is one of the most important medicinal plants in Asia. It has not been grown in Mongolia. Since 2014, we have been trying to cultivate *Panax ginseng* in Mongolian Gobi desert. The saponins such as ginsenosides are the main bioactive compounds in *P. ginseng.* The present study investigated the growth characteristics of Ginsenoside Rg1 content in roots of Panax ginseng at different cultivars (from 1 and 5 years). Minimum 0.40% for the sum of ginsenosides Rg1 and Rb1 in the *Panax ginseng* is standardized in the British and European pharmacopeia articles. The purpose of this study is to describe *Panax ginseng* is possible to cultivate in Mongolia and to determine which aged cultivar is richest content of ginsenoside. Roots of different aged of *P. ginseng* were collected at October of 2015 in field of Umnugovi province, Mongolia as studying plants. Collected samples were dried and powdered. Samples were extracted with 70% aqueous methanol. The extract was filtrated through filter paper (Whatman No. 42) and evaporated vacuum rotor. A Shimadzu LC-20AD liquid chromatograph equipped with quaternary gradient pump and extracted as described above. For comparison, a manual sampler and UV-Vis detection unknown sample was concurrently prepared and system was used. A HPLC method was developed. Separation was carried out using a reversed-phase column LiChrosorb® RP-18 (250*4.5 mm I.D., 5 µm). The binary gradient elution system consisted of water (adjusted to pH 2 with phosphoric acid) (A) and acetonitrile (B). The *Panax ginseng* was successfully cultivated in Mongolian Gobi desert. Also the following result is determined contents of Rg1 ginsenoside: 1 aged root, 2.03%; 2 aged root, 2.15%; 4 aged root, 2.31% and 5 aged root, 0.26%. The Mongolian ginseng root had the highest content of ginsenosides Rg1 in 4 aged roots and decreased in next years. Recent Publications

Recent Publications

1.S Bayaraa, L Khurelbaatar (2014) Biological active compounds in *Iris tenuifolia, Oxytropsis pseudoglandulosa and Ribes Diacanthum. Pharmaceutical Education, Science Research, Manufacturing and Marketing*: 55-60.

2.S Bayaraa, J Batkhuu, A Bayanmunkh, L Khurelbaatar (2012) Study of biological activity compounds in some Mongolian medicin\lants. *Mongolian Journal of Chemistry*; 13(39): 123-124.

Biography

Bayaraa Sukhbaatar is a Chemist, involved in the research projects on development of drug studies and Mongolian national standardization of drug technical requirements.

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